Materials Division
2014 Fall Asphalt Conference

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Upcoming 2015

The Future – Upcoming Activities

Business Process Automation –

Use information technology systems to automate business processes….will always be behind but we can close the gap.

Review of tack coat materials acceptance process…are we measuring the appropriate attributes

Expanded use of recycled materials

Quiet Pavement Technology?

MITS – PLAID Data system

Phase III began in Aug of 2014 ; package will include;

Control Charts for production quality monitoring

- easier use of data for decision making
- timelier problem recognition

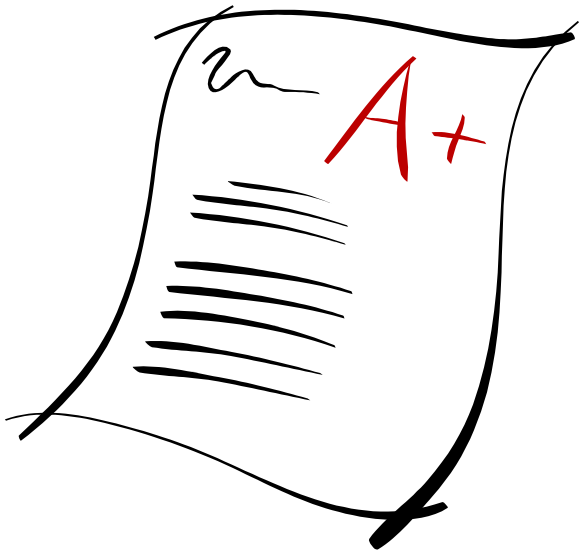
Weigh Sheet Summary automation

- less “paper pushing” for field staff

e-notification for action by recipient

MITS – PLAID Data system

Scorecard for VDOT/Industry; “health measurement”



- ability to see trends with simple data mining/push reports

- prioritization of resources on issues of programmatic significance

- Smart use of data to drive program changes

- promote accountability

Site Manager - MATS component

Collaboration with IT and CN Division

Primary goal: Automate the Materials Documentation activities of a project.

AASHTOWare products currently being developed as web based systems. VDOT participating on national level for web based development of MATS component.

Preliminary work; mapping out processes, scope system requirements and functionality.

18 – 24 months anticipated for completion.

Review of tack coat acceptance process

Tack coats -

Primary Objective: Achieve adequate bond between layers.

How: Provides a bonding agent between 2 layers

Milled surfaces have additional mechanical bond

Unmilled surfaces; only bonding agent (the Tack coat)

Are we measuring the right things?

Does our acceptance process accomplish the primary objective?

Review of tack coat acceptance process

Tack and use of;

Review of tack coat acceptance process

Review of tack coat acceptance process

Does our acceptance process accomplish the primary objective?

Expanding use of recycled materials

Recycling includes FDR, CIR, and CPR methods

Goal: Through research and pilot projects, to achieve a "steady state of practice" in the pavement design and construction sector of VDOT and Industry

Research efforts –

- **I-81 Project Study (performance monitoring) completed in Aug 2014**
- **NCAT study complete this coming winter.**
  - **Material characterization; strength and durability**

Expanding use of recycled materials

Future activities;

Nov 2014 - Materials Division directive emphasizing first solution for pavement rehab projects and other refined design guidance.

Nov 2014 - Revised CIR specification based on lessons learned from past projects.

Mar 2015 - General Use CPR specification for inclusion into Road & Bridge Specification Book; another acceptable pavement layer material

Restorative Maintenance and Reconstruction (RM/RC) type rehabilitation projects focus for recycling

Quiet Pavement Technology

Recall;

Mandate by General Assembly in 2011; HB 2001..

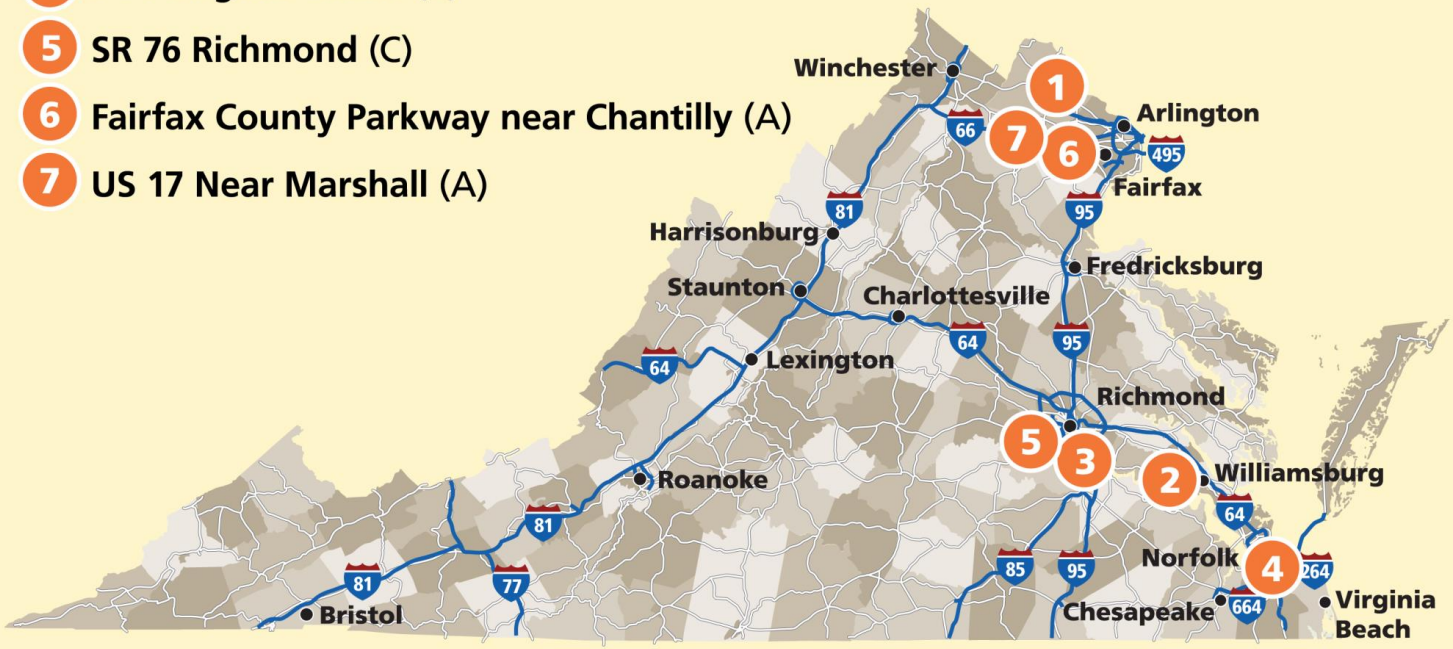
Directed VDOT to expedite the development of the technology through demonstration projects such that specifications shall be included for projects where sound mitigation is a consideration.

Since 2011, 7 demonstration projects built and have been undergoing evaluation and monitoring.

Quiet Pavement Technology

Demonstration Projects 2011/12

1. SR 7 By-Pass in Leesburg (A)
2. SR199 west of Williamsburg (A)
3. SR 288 near Chester (A)
4. I-64 Virginia Beach (C)
5. SR 76 Richmond (C)
6. Fairfax County Parkway near Chantilly (A)
7. US 17 Near Marshall (A)



Quiet Pavement Technology

In 2015 -

Final report due to General Assembly in June and include;

- results of demonstration projects;

- results of quiet pavement use in other states;

- a plan for routine implementation;

- any safety, cost, or performance issues identified by the demonstration projects.

Pending results and final report;

Potential for change in design, mix application guidelines, R&B specifications as part of any implementation plan.

Summary

FUTURE

Greater use of automation technology;

- Efficient use of data to steer program and decisions.

Tack – Review our acceptance process

- Are we measuring the right attributes??...This is applicable to all of our quality measures….

Citizens want our roads to be;

- “…..smooth, no potholes, visible striping”
- Are we measuring the right attributes to meet the citizens needs?

Expanding use of recycled materials and methods

- Another pavement layer/construction method option.

Finalization of the Quiet Pavement Technology study and plan for next steps.

THANK YOU!